One or more of the form rollers may be driven by a vibrating roller. The vibrating rollers may also oscillate laterally to pass the ink more evenly to the form rollers. One or ~~ore~~ more of the form rollers may be cooled to chill the ink thereby preventing moisture loss.

More particularly, the invention includes an eccentric form roller. The form roller is driven through friction circumferentially and laterally by the corresponding vibrating roller. The form roller is marked on the low side of the eccentric. As the form roller is driven circumferentially by the vibrating roller, the contact between the form roller and the plate cylinder changes from minimal pressure to substantial pressure. Simultaneously, one or more cams move or control the movement of the form roller back and forth laterally in a non-uniform manner. The combination of these actions substantially eliminates foreign particles and clumps of ink which eliminates hickeys, ghosting, and other distortions, thereby substantially increasing the quality of the printing.

A pair of bearings 39 are mounted on the shaft 35. The bearings 39 allow the form roller to rotate around and slide back and forth along the shaft 35. The form roller also contains a pair of springs 36. The springs 36 are secured on the shaft by two end caps 40. The springs ~~35~~ 36 help create an erratic oscillation motion as contact pressure increases and decreases against the vibrating rollers 17. The form roller 19 also contains two cams 41 on each end thereof. The cams 41 control the oscillation of the form roller 19. The cams 41 can be rotated at the same or different speeds making the oscillation of the form roller 19 entirely random.

Each form roller 19 has a cylindrical core 45 surrounded with a cover 47. The core 45 is preferably made of metal, such as steel, and the cover 47 is made of rubber material, such as neoprene. The outer surface of the cover 47 is preferably a fabric or fiber impregnated elastomeric material. ~~Others~~ Other materials may be used depending upon the requirements of particular applications of the invention.

The shaft 35 defines an axis. The cylindrical core 45 is coaxial with the shaft 35. The cover 47 is substantially circular and is defined by an axis extending parallel to ~~the~~ and offset from the axis defined by the shaft 35.